

WHAT IS CLAIMED IS:

1. An image processing system comprising:
 - a scanner device that scans an original document and obtains scanned data;
 - a printer device that prints out image data;
 - a personal computer (PC);
 - means for establishing a Universal Serial Bus (USB) connection between the PC and the scanner device with the PC acting as a host terminal and the scanner device acting as a device terminal; and
 - means for establishing a USB connection between the scanner device and the printer device with the scanner device acting as a host terminal and the printer device acting as a device terminal.
2. The image processing system according to claim 1, wherein when carrying out a PC printing operation, the scanner device receives print data from the PC by a USB device function and forwards the print data to the printer device by a USB host function.
3. The image processing system according to claim 1, wherein when carrying out a copying operation, the scanner device transmits the scanned data to the printer device by a USB host function, and when carrying out a PC scanning operation, the scanner device transmits the scanned data to the PC by a USB device function.
4. An image processing system comprising:
 - a scanner device that scans an image of an original document and outputs scanned data;
 - a printer device that prints received image data onto a recording

medium; and

a remote device;

wherein when one of the devices acts as a host terminal and another device acts as a device terminal, each of the devices is connected by an interface that transmits and receives data by collaboration of a host function of the one of the devices and a device function of the another device;

the remote device and the scanner device are connected with the remote device acting as the host terminal and the scanner device acting as the device terminal; and

the scanner device and the printer device are connected with the scanner device acting as the host terminal and the printer device acting as the device terminal.

5. The image processing system according to claim 4, wherein the interface is a Universal Serial Bus (USB).

6. A scanner device, comprising:

at least two input/output ports for an interface to transmit and receive data by collaboration of a host function of one device and a device function of another device with the one device acting as a host terminal and the other device acting as a device terminal;

wherein when the scanner device acts as the device terminal, a connection can be established with a remote device acting as the host terminal via one of the input/output ports; and

wherein when the scanner device acts as the host terminal, a connection can be established with a printer device acting as the device terminal via the other one of the input/output ports.

7. The scanner device according to claim 6, further comprising:

means for determining whether to forward data received from the remote device by the device function of the scanner device to the printer device; and

means for controlling to forward the data to the printer device by the host function of the scanner device when the means for determining determines to forward the data.

8. The scanner device according to claim 6, further comprising:

means for determining whether or not the data received from the remote device by the device function of the scanner device is an image scanning instruction or an image retrieving request; and

means for controlling to transmit scanned image data by the scanner device to the remote device by the device function of the scanner device when the means for determining determines that the received data is the image scanning instruction or the image retrieving request.

9. The scanner device according to claim 6, further comprising:

means for detecting an input of a copy start instruction; and

means for controlling to scan an original document in accordance with the input of the copy start instruction and to transmit obtained scanned data to the printer device by the host function of the scanner device.

10. The scanner device according to claim 9, further comprising:

means for converting a data format of the scanned data when executing a copying process;

wherein the means for converting converts the scanned data into a same format as a data format received from the remote device to be forwarded to the printer device; and

the means for controlling controls to transmit the scanned data under the data format converted by the means for converting when transmitting the scanned data to the printer device.

11. The scanner device according to claim 6, further comprising:
means for retrieving status information of the printer device by the host function of the scanner device;

means for storing the status information retrieved by the means for retrieving;

means for determining whether or not data received from the remote device by the device function of the scanner device is a status information request; and

means for controlling to transmit to the remote device by the device function of the scanner device, the status information stored in the means for storing, when the means for determining determines that the received data is the status information request.

12. An image processing method comprising:
transmitting print data from a personal computer (PC) to a scanner device using a Universal Serial Bus (USB) host function of the PC and a USB device function of the scanner device when carrying out a PC printing operation; and

transmitting the print data from the scanner device to a printer device using a USB host function of the scanner device and a USB device function of the printer device.

13. The image processing method according to claim 12, further comprising transmitting the scanned data to the printer device by the USB host function of the scanner device when carrying out a copying operation.

14. The image processing method according to claim 12, further comprising:

converting a data format of the scanned data from the scanner device into a same format as a data format received from a remote device to be forwarded to the printer device when carrying out a copying operation; and

transmitting the scanned data under the converted data format to the printer device by the USB host function of the scanner device.

15. The image processing method according to claim 12, further comprising transmitting scanned data from the scanner device to the PC by the USB device function of the scanner device when carrying out a PC scanning operation.

16. An image processing system comprising:

a scanner device that scans an original document and obtains scanned data;

a printer device that prints out image data;

a personal computer (PC);

a first interface that establishes a Universal Serial Bus (USB) connection between the PC and the scanner device with the PC acting as a host terminal and the scanner device acting as a device terminal; and

a second interface that establishes a USB connection between the scanner device and the printer device with the scanner device acting as the host terminal and the printer device acting as the device terminal.

17. The image processing system according to claim 16, wherein when carrying out a PC printing operation, the scanner device receives print data from the PC by a USB device function and forwards the print data to the printer device by a USB host function.

18. The image processing system according to claim 16, wherein when carrying out a copying operation, the scanner device transmits the scanned data to the printer device by a USB host function, and when carrying out a PC scanning operation, the scanner device transmits the scanned data to the PC by a USB device function.

19. The image processing method according to claim 12, further comprising scanning an original document.

20. The image processing method according to claim 12, further comprising printing out image data.